CLAIM AMENDMENTS

1 - 19.   (canceled)

1   20.   (new)   A method for implementing internetworking of
2   a set of Content Delivery Networks provided with
3   respective caches,
4   respective Directory Name Service or Domain Name Servers,
5   respective content distribution systems to respective
6   clients, and
7   interface components each susceptible of being associated
8   with a respective network in the set of networks and co-operating
9   with at least one similar interface component associated with
10   another network in the set of networks,
11   the method comprising the steps of:
12   collecting in the interface components content-related
13   data related to the association of the contents and the caches that
14   contain them; and
15   transferring routing data obtained by processing the
16   content-related data from at least one of the interface components
17   to the Directory Name Service or Domain Name Server of the
18   respective network so as to update tables of the Directory Name
19   Server or Domain Name Server that are different from the interface
20   component such that access by the client of the respective network
21   to the contents of the networks in the set of CDN is implemented

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22 through the Directory Name Service or Domain Name Server of the
23 network.

24   21. (new) The method defined in claim 20 wherein the
25 following steps are performed by at least one of the interface
26 components:
27   receiving data on the state of the caches of the contents
28 of the respective network,
29   determining whether the contents require an updating or
30 not, and
31   managing the updating by performing at least one step in
32 the following group comprising:
33   editing the respective database,
34   editing the respective Directory Name Service tables,
35   editing the respective log file archive, and
36   forwarding an update request message to the similar
37 component.

1   22.   (new)   The method defined in claim 21 wherein the
2 interface components communicate via a CNAP protocol.

1   23.   (new) A system comprising a set of internetworked
2 Content Delivery Networks provided with
3   respective caches,
4   respective Directory Name Service or Domain Name Server,

5   respective content distribution systems to respective
6 clients, and
7   interface components susceptible of each being associated
8 with a respective network in the set of networks and co-operating
9 with at least one similar interface component associated with
10 another network in the set of networks,
11 the interface components being configured to collect content-
12 related data related to the association of the contents and the
13 caches that contain them, obtained by processing the content-
14 related data, at least one of the interface components the routing
15 data to the Directory Name Service or Domain Name Server of the
16 respective network, so as to update tables of the Directory Name
17 Service or Domain Name Server that are different from the interface
18 component so that access by the client of the respective network to
19 the contents of the networks in the set of CDN is implemented
20 through the Directory Name Service or Domain Name Server of the
21 network.

1   24.   (new)   The system defined in claim 23 wherein the
2 interface components each comprise:
3   a module for receiving data on the state of the cache
4 and/or of the contents of the respective network,
5   a module for determining whether the contents require an
6 updating or not, and

7   a module for managing the updating by performing at least

8   one step in the following group comprising:

9   editing the respective database,

10   editing the respective Directory Name Service

11   tables,

12   editing the respective log file archive, and

13   forwarding an update request message to the similar

14   component.

1   25. (new) The system defined in claim 24 wherein the

2   interface components communicate via a CNAP protocol.

1   26. (new) An interface component for implementing

2   Content Delivery Network CDN internetworking, the networks being

3   comprised in a set and being provided with

4   respective caches,

5   respective Directory Name Service or Domain Name Servers,

6   and

7   respective content distribution systems to respective

8   clients,

9   the interface component being susceptible of being associated with

10 a respective network in the set of networks and co-operating with

11 at least one similar interface component associated with another

12 network in the set of networks, the interface component being

13 configured to collect content-related routing data related to the

14 association of the contents and the caches that contain them, the

15 interface component comprising:

16   at least one first interface module for exchanging data

17 with the similar component,

18   a second interface module for interfacing with the

19 Directory Name Service of the respective network, and

20   a core for collecting and processing the data received by

21 the interface component and routing respective requests, whereby

22 the interface component is susceptible of transferring routing data

23 obtained by processing the content-related data to the Directory

24 Name Service or Domain Name Server of the respective network via

25 the second interface module, the routing data being used to update

26 tables of the Directory Name Service or Domain Name Server that are

27 different from the interface component.

1   27. (new) The interface component defined in claim 26

2   wherein the interface component is configured to be controlled by a

3   monitoring system and comprises:

4   a third interface module for retrieving data on the

5   availability of contents from the content distribution system on

6   the respective network, and

7   a fourth interface module for interacting with the

8   monitoring system.

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1   28. (new) The interface component defined in claim 26
2 wherein the core comprises:
3   a module for receiving data from the interface modules
4 and extracting data on the status of the caches and/or of the
5 contents of the respective network therefrom, a module for
6 determining whether the contents require an updating or not, and
7   a module for managing the updating by performing at least
8 one step in the following group comprising:
9   editing the respective database,
10   editing the respective Directory Name Service tables,
11   editing the respective log file archive, and
12   forwarding an update request message to the similar
13 interface component.

1   29. (new)   The interface component defined in claim 28
2 wherein each first interface module is configured to communicate
3 with another first interface module of the similar component via
4 CNAP protocol.

1   30. (new)   The interface component defined in claim 29
2 wherein each first interface module is configured to translate from
3 the CNAP protocol to a format that can be understood by a core of
4 another interface component.

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5   31.   (new)   The interface component defined in claim 30
6 wherein the communication between the first interface module and
7 another first interface module of a similar interface component
8 comprises the transmission of signals indicating quantities from
9 the following group comprising:
10   ID of the network in which the interface component is
11 associated,
12   IP address of the computer hosting the local interface
13 component,
14   ID's of interconnected systems via the interface
15 component and the similar interface component,
16 IP addresses of the remote interface components of the
17 internetworking systems,
18   level of confidences of the internetworking network
19 connection, and
20   at least one identification of physical characteristics,
21 such as the geographical distance of the connection between the
22 interfacing component and the similar interface component.

1   32.   (new)   The interface component defined in claim 26
2 wherein each first interface module is configured to exchange
3 information with a similar interface component via an IP
4 transportation protocol such as the TCP protocol.

1   33. (new) The interface component defined in claim 26
2   wherein the core and the first interface module are configured to
3   exchange signals indicating quantities selected from the following
4   group:
5   URL identifying the content to which the message refers,
6   IP address of the cache that distributes the content,
7   ID of the Content Delivery Network to which the cache
8   belongs,
9   cache state,
10   content state in the cache, and
11   life time of routing data.

1   34. (new) The interface component defined in claim 27
2   wherein the fourth interface module is configured to transfer to
3   the core signals indicating quantities from the following group
4   comprising:
5   IP address of the cache to which the message refers,
6   percentage of CPU used by the cache,
7   percentage of RAM used by the cache,
8   percentage of disc used by the cache, and
9   percentage of users connected in relation to the maximum
10 capacity of the involved cache service.

1   35. (new) The interface component defined in claim 27
2   wherein the third interface module is configured to send to the
3   core signals indicating quantities from the following group
4   comprising:
5   URL identifying the content to which the message refers,
6   list of IP addresses of the caches of the content,
7   level of confidence of the content,
8   level of availability of the content,
9   cache state,
10   life time of routing data.

1   36. (new) The interface component defined in claim 35
2   wherein the quantity identifying the level of confidence of the
3   content is susceptible of assuming distinct levels corresponding to
4   at least one first level of confidence in the group comprising:
5   a first level of confidence indicating that the contents
6   may be exchanged by all networks in the set of networks, and
7   a second level of confidence indicating that the contents
8   may be exchanged on by a selectively determined subset of networks
9   in the set of networks.

1   37. (new) The interface component defined in claim 26
2   wherein second interface module is configured to communicate with
3   the Directory Name Server to update respective tables on the basis

4   of signals indicating quantities from the following group

5   comprising:

6   ID of the operation to be carried out on the table of the server,

7   such as addition or deletion,

8   type of register,

9   name of the domain to which the message refers,

10   entire URL of the content to which the message refers,

11   IP address of the best cache to serve the domain, and

12   life time of the register.

1   38.   (new)   The interface component defined in claim 26

2   wherein the core module comprises a memory hosting a data structure

3   containing information on the state of the respective Content

4   Delivery Network and similar internetworking networks.

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